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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/552,037

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Dirk Andolph

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Robert D. Shedd, Patent Operations
THOMSON Licensing LLC
P.O. Box 5312
Princeton, NJ 08543-5312

EXAMINER

HARVEY, DAVID E

ART UNIT

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2621

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/552,037	Applicant(s) ANDOLPH ET AL.	
	Examiner DAVID E. HARVEY	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/3/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

1. The following is a quotation of the second paragraph of 35 U.S.C.

112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3-7, and 9-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A) With respect to claim 3:

In line 2 of claim 3, "all said other data streams" does not have clear antecedent basis and is confusing because it is not clear as to what it refers; all of what others?.

B) With respect to claim 4:

Claim 4 depends from claim 3 and is indefinite because the recitations thereof appear to be mutually exclusive and, thus, in conflict with those of claim 3; i.e., claim 3 indicates the values are all the same where claim 4 seems to indicate the values are different. Clarification is needed.

C) With respect to claim 5-7:

In line 2 of claim 5, the "during initiation" recitation is indefinite because a step of "initiating" has not been previously recited and, as such, it is not clear as to what the "during initiation" recitation of claim 5 refers. Similar clarification is needed with respect to claims 6 and 7.

D) With respect to claim 10:

Currently, as drafted, claim 10 depends from claim 1. However, it appears that claim 10 should actually depend from claim 9 for proper antecedent basis. Clarification is required.

C) With respect to claims 9 and 10:

Claims 9 and 10 are written in “means-plus-function” language and are, therefor, presumed to invoke a section 112-6 interpretation/construction; i.e., each of the recited “means” is presumed to be limited to the disclosed structure corresponding thereto and equivalents thereof. However, claims 9 and 10 are indefinite because it is unclear as to where the instant disclosure sets forth the corresponding structure for each of the recited means as is required for a 112-6 construction/interpretation. Clarification is needed.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore-

A) The recited:

1) Storage medium/Optical disc;

2) Separate buffers;

3) Pick-up;

4) Means for detecting;

5) Means for requesting; and

6) Means for scheduling;

,e.g., as recited in claims 10-11, must be shown or the feature(s) canceled from the claim(s); and

B) The recited:

1) Step of “detecting ...” (e.g., @ lines 9-10 of claim 1);

2) Step of “generating and scheduling a request ...” (e.g., @ lines 11-16); and

3) Step of “reading data ...” (e.g., @ lines 17-23 of claim 1);

,e.g., as recited in claims 1-9, must be shown or the feature(s) canceled from the claim(s).

No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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5. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #6,035,092 to Fujinami in view of US Patent #5,21,918 to Kim.

A) The showing of Fujinami:

As is shown in Figure 36, Fujinami discloses and A/V playback system that included:

- 1) A pickup for reading data streams from an optical disc (e.g., @ 1) based on "requests" for reading data provided thereto [**e.g., note 57-67 of column 12**];
- 2) A first buffer (@ 6) for buffering a read video data stream prior to decoding and output/reproduction therefrom (@ 7);
- 3) A second buffer (@ 8) for buffering a read audio data stream prior to decoding and output/reproduction therefrom (@ 9); and
- 4) Control circuitry (e.g., @ 6, 8, and 28) which is for:
 - a) Detecting when the amount of data in a given one of the first and second buffers is below a first threshold level;
 - b) Generating and scheduling said request for data from when the detected amount of data is below said threshold, wherein said requests are provided to the pickup (@ 1).

[Note: lines 11-67 of column 22; and lines 1-22 of column 23]

B) Differences:

Claim 1 differs from the showing Fujinami in that Fujinami failed to describe an operation in which the respective video (@ 6) and audio (@ 8) buffers are controlled and filled, independently, with the respective video and audio data streams requested from the optical disc.

C) The showing of Kim & Obviousness:

Kim has been cited because, as shown in Figure 1, Kim disclosed an optical disc playback system of the type described by Fujinami. However, unlike Fujinami, Kim explicitly taught an operation in which the audio and video buffers are filled and controlled independently [SEE Figure 4B].

The examiner maintains that it would have been obvious to one of ordinary skill in the art to have modified the system disclosed by Fujinami in accordance with the teachings of Kim whereby the respective buffers are filled and controlled independently; i.e., the examiner maintains that such a scheme is advantageous in that the respective buffers clearly have different instantaneous states of fullness and thus the fact that one buffer needs to be filled does not necessarily mean the other buffer also

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needs to be filled (i.e., evidence by the fact that the respective fullness states are detected separately and independently).

With respect to this modified system, the following is noted:

- 1) The examiner maintains that the audio buffer of the modified system is inherently smaller than the video buffer, and inherently operates at a slower rate clock rate, given the fact that the bandwidth of the audio information is magnitudes smaller than the bandwidth of the video data;
- 2) The examiner takes Official Notice that it was notoriously well known in the A/V processing art to have selected the video information sampling/clock to be an integer multiple, many times greater than two, of the audio sampling/clock rate so that the two sample/clock rates can be derived from a single phase-locked-loop thereby minimizing the cost of the processing circuitry; and
- 3) The examiner maintains that the respective "requests" per unit of time needed to keep the respective audio and video buffers full of information, average and instantaneous, are inherently a function of the respective buffer sizes and the respective sample/clocking rates and, as such, that they are necessarily different.

6. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #6,035,092 to Fujinami in view of US Patent #5,21,918 to Kim. For the same reasons that were set forth above for claim 1. Additionally:

The examiner takes Official Notice that it was notoriously well known in the optical disc recording arts for an A/V stream to have contained a plurality of different audio signals representing different audio channels (e.g., stereo; SAP, etc,...) The examiner maintains that it would have been obvious to one of ordinary skill in the art to have further modified the system disclosed by Fujinami to produced plurality of different audio outputs.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #6,035,092 to Fujinami in view of US Patent #5,21,918 to Kim. For the same reasons that were set forth above for claim 1. Additionally:

The examiner takes Official Notice that it was notoriously well known in the optical disc recording arts for a control (e.g., navigation) stream to have been provided along with the A/V. Such a stream was provided directly to the controller and, as such, was not "subsequently buffered". The examiner maintains that it would have been obvious to one of ordinary skill in the art to have further modified the system disclosed by Fujinami to produce such convention control data for the well known benefits thereof.

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8. While not “prior art”, US Patent Document #2006/0233203 has been cited to the extent that it may (or may not) affect the interpretation of teachings found in the applied prior art [e.g., Note: Figure 9; and paragraphs 0079 and 0080].

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID E. HARVEY whose telephone number is (571) 272-7345. The examiner can normally be reached on M-F from 6:00AM to 3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Marsh D. Banks-Harold, can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/DAVID E HARVEY/

Primary Examiner, Art Unit 2621

DAVID E HARVEY

Primary Examiner

Art Unit 2621